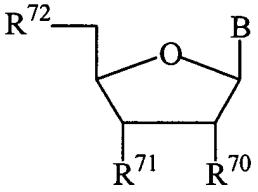
Please cancel claims 1-69 without prejudice.

Please add new claims 70-105 as follows:

-- 70. A labeled nucleoside/tide or nucleoside/tide analog comprising a rhodamine dye conjugated by a linker to a nucleoside/tide or nucleoside/tide analog, wherein:

the rhodamine is a rhodamine-type parent xanthene having attached to the xanthene C9 carbon a phenyl group that is further substituted with an ortho carboxy or ortho sulfonate group or a salt thereof, one to three substituted or unsubstituted aminopyridinium groups and a substituted or unsubstituted alkylthio, or arylthio group; and the nucleoside/tide or nucleoside/tide analog comprises the structure:

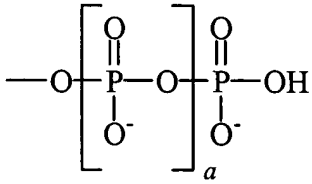


wherein:

B is a nucleobase selected from a purine, a 7-deazapurine, an 8-aza,7-deazapurine, a pyrimidine, a normal nucleobase and a common analog of a normal nucleobase;

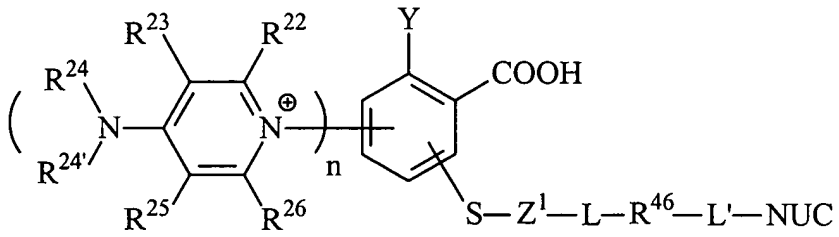
R^{70} and R^{71}, when taken alone, are each independently selected from hydrogen, hydroxyl and a moiety which blocks polymerase–mediated template–directed polymerization, or when taken together form a bond such that the illustrated sugar is 2',3'-didehydroribose; and

R^{72} is selected from hydroxyl, a phosphate ester having the formula:



where *a* is an integer from 0 to 2, and a phosphate ester analog, or a salt thereof.

71. The labeled nucleoside/tide or nucleoside/tide analog of claim 70 comprising the formula:



wherein:

Y is a rhodamine-type parent xanthene ring attached to the illustrated phenyl group at the xanthene C9 carbon;

R^{22}, R^{23}, R^{25}, and R^{26} are independently selected from hydrogen and $(C_1–C_6)$ alkyl;

R^{24}, when taken alone, is $(C_1–C_6)$ alkyl, or when taken together with $R^{24'}$ is $(C_4–C_{10})$ alkyldiyl, $(C_4–C_6)$ alkyleno, $(C_4–C_6)$ heteroalkyldiyl and $(C_4–C_6)$ heteroalkyleno;

$R^{24'}$, when taken alone, is $(C_1–C_6)$ alkyl, or when taken together with R^{24} is $(C_4–C_{10})$ alkyldiyl, $(C_4–C_6)$ alkyleno, $(C_4–C_6)$ heteroalkyldiyl and $(C_4–C_6)$ heteroalkyleno;

n is 1, 2, or 3;

S is sulfur;

Z^1 is selected from $(C_1–C_{12})$ alkyldiyl, $(C_1–C_{12})$ alkyldiyl independently substituted with one or more of the same or different W^1 groups, $(C_5–C_{14})$ aryldiyl, and $(C_5–C_{14})$ aryldiyl independently substituted with one or more of the same or different W^2 groups;

W^1 is selected from –X, –R, =O, –OR, –SR, =S, –NRR, =NR, $–CX_3$, –CN, –OCN, –SCN, –NCO, –NCS, –NO, $–NO_2$, $=N_2$, $–N_3$, $–S(O)_2O^-$, $–S(O)_2OH$, $–S(O)_2R$, –C(O)R, –C(O)X, –C(S)R, –C(S)X, –C(O)OR, $–C(O)O^-$, –C(S)OR, –C(O)SR, –C(S)SR, –C(O)NRR, –C(S)NRR and –C(NR)NRR;

W^2 is selected from –R, –OR, –SR, –NRR, $–S(O)_2O^-$, $–S(O)_2OH$, $–S(O)_2R$, –C(O)R, –C(O)X, –C(S)R, –C(S)X, –C(O)OR, $–C(O)O^-$, –C(S)OR, –C(O)SR, –C(S)SR, –C(O)NRR, –C(S)NRR and –C(NR)NRR;

L is a selected from a bond, (C_1–C_{12}) alkyldiyl, (C_1–C_{12}) substituted alkyldiyl, (C_6–C_{26}) arylalkyldiyl, –O– , –S– , –NR–, –C(O)O– , –C(O)NR– , –NRS(O)$_2$– , –NR–NR– , –NRC(O)O– , and –NRC(O)NR–;

R^{46} is selected from –C(O)NR– , –C(O)O– , and –C(O)S– ,

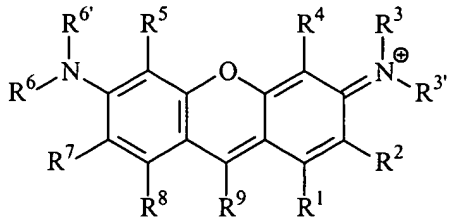
L' is selected from (C_1–C_{20}) alkyldiyl, (C_1–C_{20}) heteroalkyldiyl, (C_1–C_{20}) alkyleno, (C_1–C_{20}) heteroalkyleno, (C_6–C_{26}) arylalkyldiyl, (C_5–C_{20}) heteroarylalkyldiyl, and substituted forms thereof; and

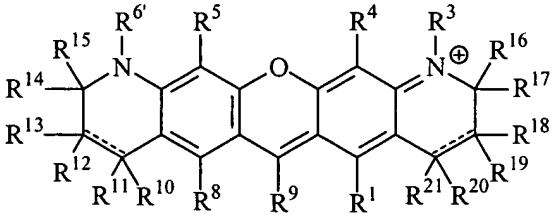
NUC is a nucleoside/tide or nucleoside/tide analog;

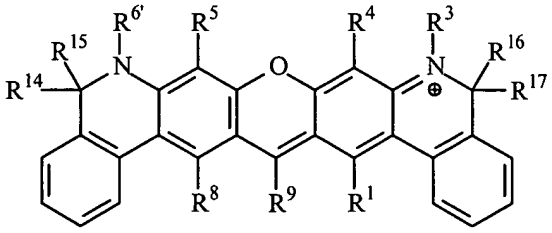
each R is independently selected from hydrogen, (C_1–C_6) alkyl, (C_5–C_{20}) aryl, (C_6–C_{26}) arylalkyl, and (C_5–C_{20}) arylaryl; or when two R groups on the same nitrogen atom are taken together, those two R groups are (C_4–C_{10}) alkyldiyl or (C_4–C_{10}) alkyleno; and

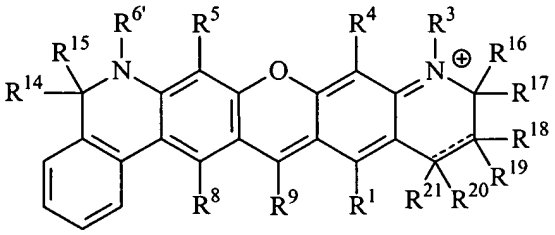
each X is independently a halogen.

72. The labeled nucleoside/tide or nucleoside/tide analog of claim 71 wherein Y comprises the rhodamine-type parent xanthene ring structures:

(Y-1)  ,

(Y-2)  ,

(Y-3)  , and

(Y-4) 

and a salt thereof, wherein:

R^1 and R^2 when taken alone, are independently hydrogen or (C_1–C_6) alkyl;

R^3 and $R^{3'}$ when taken alone, are independently selected from hydrogen, (C_1–C_6) alkyl, (C_5–C_{14}) aryl and (C_5–C_{14}) arylaryl, or when taken together is (C_4–C_6) alkyldiyl or (C_4–C_6) alkyleno, or when individually taken together with R^2 or R^4 is (C_2–C_6) alkyldiyl or (C_2–C_6) alkyleno;

R^4, when taken alone, is selected from hydrogen and (C_1–C_6) alkyl, or when taken together with R^3 or $R^{3'}$ is (C_2–C_6) alkyldiyl or (C_2–C_6) alkyleno;

R^5, when taken alone, is selected from hydrogen and (C_1–C_6) alkyl, or when taken together with R^6 or $R^{6'}$ is (C_2–C_6) alkyldiyl or (C_2–C_6) alkyleno;

R^6 and $R^{6'}$ when taken alone, are selected from hydrogen, $(C_1–C_6)$ alkyl, $(C_5–C_{14})$ aryl and arylaryl, or when taken together are $(C_4–C_6)$ alkyldiyl or alkyleno, or when individually taken together with R^5 or R^7 is $(C_2–C_6)$ alkyldiyl or alkyleno;

R^7, when taken alone, is selected from hydrogen and $(C_1–C_6)$ alkyl, or when taken together with R^6 or $R^{6'}$ is $(C_2–C_6)$ alkyldiyl or alkyleno;

R^8, when taken alone, is selected from hydrogen and $(C_1–C_6)$ alkyl;

R^{10}, R^{11}, R^{12}, R^{13}, R^{14}, R^{15}, R^{16}, R^{17}, R^{18}, R^{19}, R^{20} and R^{21} are each independently selected from hydrogen and $(C_1–C_6)$ alkyl, or

when R^{10}, R^{11}, R^{12} and R^{13} taken together are $(C_5–C_{14})$ aryleno or $(C_5–C_{14})$ aryleno substituted with one or more of the same or different $(C_1–C_6)$ alkyl, or

when R^{18}, R^{19}, R^{20} and R^{21} taken together are $(C_5–C_{14})$ aryleno or aryleno substituted with one or more of the same or different $(C_1–C_6)$ alkyl; and

R^9 is the point of attachment to the xanthene C9 carbon.

73. The labeled nucleoside/tide or nucleoside/tide analog of claim 72 wherein R^2 when taken together with R^3 or $R^{3'}$ is $(C_2–C_6)$ alkyldiyl or $(C_2–C_6)$ alkyleno.

74. The labeled nucleoside/tide or nucleoside/tide analog of claim 72 wherein:

an alkyldiyl or alkyleno bridge formed by taking R^2 together with R^3 or $R^{3'}$, R^7 together with R^6 or $R^{6'}$, or R^4 together with and R^3 or $R^{3'}$, is ethano, propano, 1,1–dimethylethano, 1,1–dimethylpropano or 1,1,3–trimethylpropano;

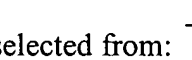
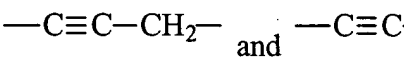
an aryleno bridge formed by taking R^1 together with R^2 is benzo or naphtho;

an alkyldiyl or alkyleno bridge formed by taking R^3 together with $R^{3'}$, or R^6 together with $R^{6'}$, is butano;

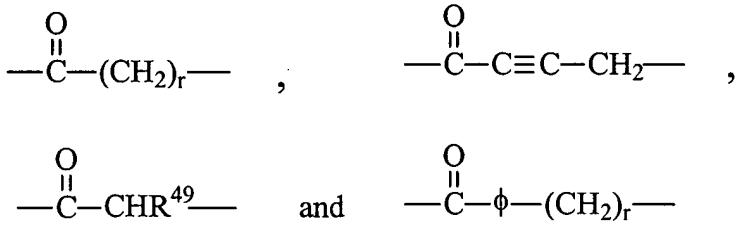
an alkyldiyl or alkyleno bridge formed by taking R^5 together with R^6 or $R^{6'}$ is ethano, propano, 1,1–dimethylethano, 1,1–dimethylpropano and 1,1,3–trimethylpropano; and

an aryleno bridge formed by taking R^{10}, R^{11}, R^{12} and R^{13} together, or R^{18}, R^{19}, R^{20} and R^{21} together, is benzo.

75. The labeled nucleoside/tide or nucleoside/tide analog of claim 71 in which Z^1 is phenyldiyl.

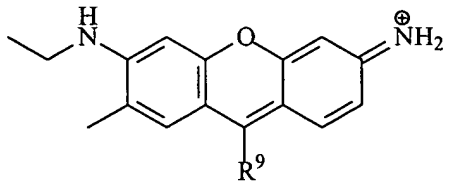
76. The labeled nucleoside/tide or nucleoside/tide analog of Claim 71 in which L' is selected from:  and  .

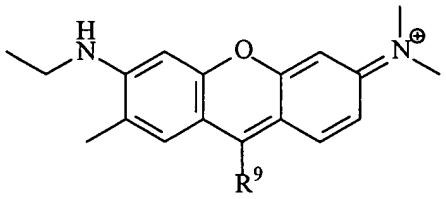
77. The labeled nucleoside/tide or nucleoside/tide analog of Claim 71 in which L' is:  wherein R^{47} is hydrogen or (C_1-C_6) alkyl, and R^{48} is selected from:



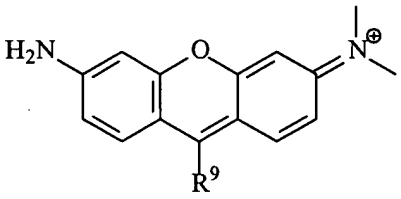
wherein each r is independently an integer from 1 to 6; R^{49} is hydrogen, (C_1-C_6) alkyl, or an amino acid side chain; and ϕ is phenyldiyl or substituted phenyldiyl.

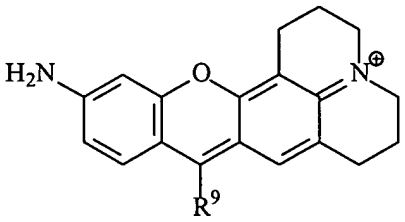
78. The labeled nucleoside/tide or nucleoside/tide analog of claim 71 in which Y is selected from the structures:

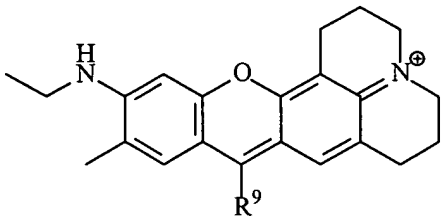
(Y-20a)  ,

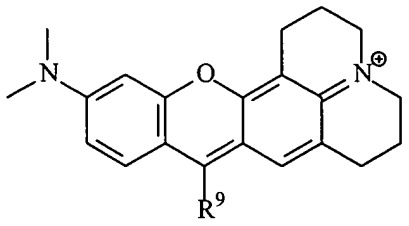
(Y-21a)  ,

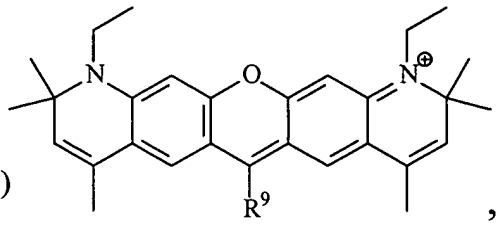
A1

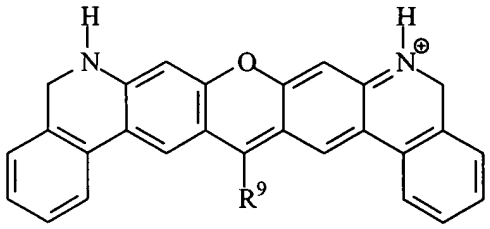
(Y-22a)  ,

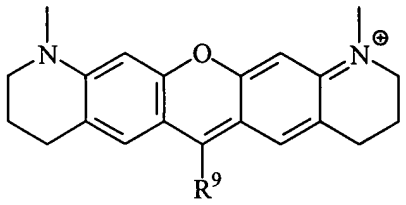
(Y-23a)  ,

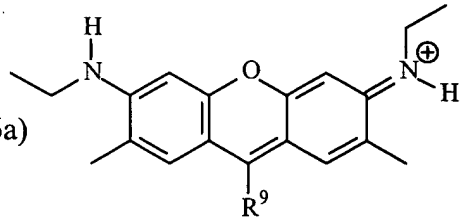
(Y-24a)  ,

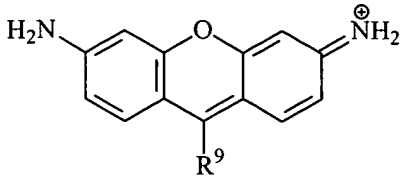
(Y-25a)  ,

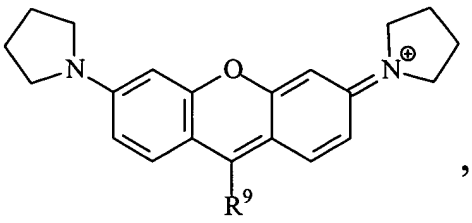
(Y-31a)  ,

(Y-34a)  ,

(Y-35a)  ,

(Y-36a)  ,

(Y-39a)  ,

(Y-41a)  ,

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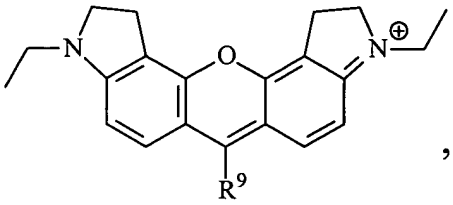
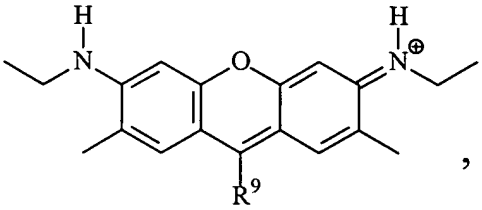
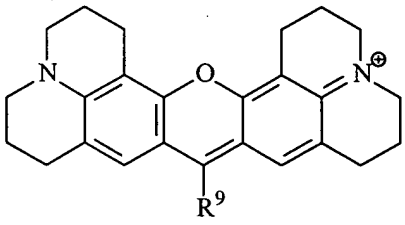
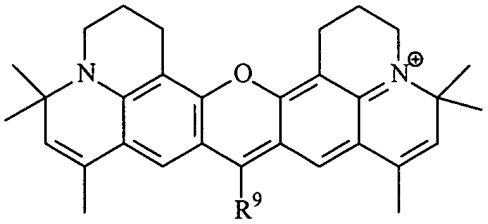
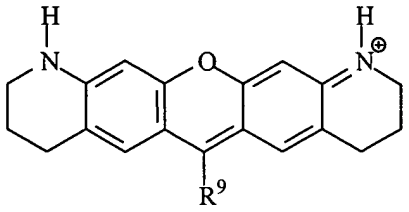
(Y-42a)  ,

(Y-43a)  ,

(Y-44a)  ,

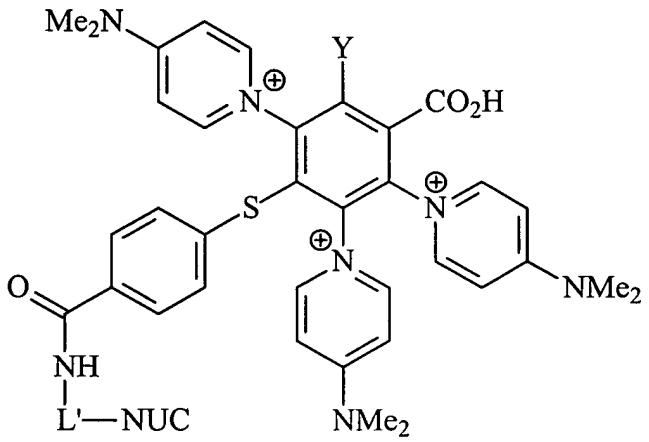
(Y-45a)  , and

(Y-46a)  .

A1

79. The labeled nucleoside/tide or nucleoside/tide analog of claim 71 wherein R^{22}, R^{23}, R^{25}, and R^{26} are each hydrogen.

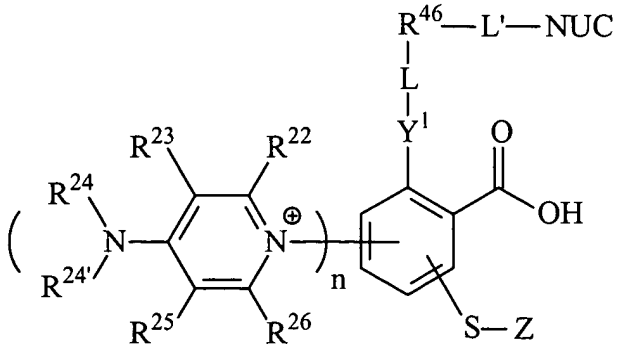
80. The labeled nucleoside/tide or nucleoside/tide analog of claim 71 which comprises the structure:



or a salt thereof.

81. The labeled nucleoside/tide or nucleoside/tide analog of Claim 80 in which L' is selected from: —C≡C—CH_2— and —C≡C—CH_2—O—CH_2CH_2— .

82. The labeled nucleoside/tide or nucleoside/tide analog of claim 70 comprising the formula:



wherein:

Y^1 is a rhodamine-type parent xanthene ring attached to the illustrated phenyl group at the xanthene C9 carbon;

R^{22}, R^{23}, R^{25}, and R^{26} are independently selected from hydrogen and (C_1–C_6) alkyl;

R^{24}, when taken alone, is (C_1–C_6) alkyl, or when taken together with $R^{24'}$ is (C_4–C_{10}) alkyldiyl, (C_4–C_6) alkyleno, (C_4–C_6) heteroalkyldiyl or (C_4–C_6) heteroalkyleno;

$R^{24'}$, when taken alone, is (C_1–C_6) alkyl, or when taken together with R^{24} is (C_4–C_{10}) alkyldiyl, (C_4–C_6) alkyleno, (C_4–C_6) heteroalkyldiyl or (C_4–C_6) heteroalkyleno;

n is 1, 2, or 3;

S is sulfur;

Z is (C_1–C_{12}) alkyl, (C_1–C_{12}) alkyl substituted with one or more of the same or different W^1 groups, (C_5–C_{20}) aryl, and (C_5–C_{20}) aryl substituted with one or more of the same or different W^2 groups;

W^1 is selected from –X, –R, =O, –OR, –SR, =S, –NRR, =NR, $–CX_3$, –CN, –OCN, –SCN, –NCO, –NCS, –NO, $–NO_2$, $=N_2$, $–N_3$, $–S(O)_2O^-$, $–S(O)_2OH$, $–S(O)_2R$, –C(O)R, –C(O)X, –C(S)R, –C(S)X, –C(O)OR, $–C(O)O^-$, –C(S)OR, –C(O)SR, –C(S)SR, –C(O)NRR, –C(S)NRR and –C(NR)NRR;

W^2 is selected from –R, –OR, –SR, –NRR, $–S(O)_2O^-$, $–S(O)_2OH$, $–S(O)_2R$, –C(O)R, –C(O)X, –C(S)R, –C(S)X, –C(O)OR, $–C(O)O^-$, –C(S)OR, –C(O)SR, –C(S)SR, –C(O)NRR, –C(S)NRR and –C(NR)NRR;

L is a selected from a bond, (C_1–C_{12}) alkyldiyl, (C_1–C_{12}) substituted alkyldiyl, (C_6–C_{26}) arylalkyldiyl, –O– , –S– , –NR–, –C(O)O– , –C(O)NR– , $–NRS(O)_2–$, –NR–NR– , –NRC(O)O– , and –NRC(O)NR–;

R^{46} is selected from –C(O)NR– , –C(O)O– , and –C(O)S– ,

L' is selected from (C_1–C_{20}) alkyldiyl, (C_1–C_{20}) heteroalkyldiyl, (C_1–C_{20}) alkyleno, (C_1–C_{20}) heteroalkyleno, (C_6–C_{26}) arylalkyldiyl, (C_5–C_{20}) heteroarylalkyldiyl, and substituted forms thereof; and

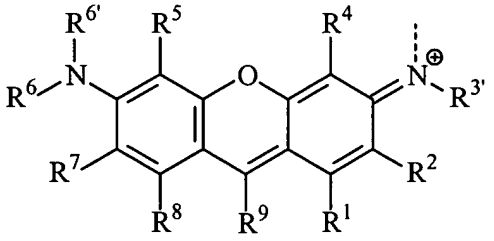
NUC is a nucleoside/tide or nucleoside/tide analog;

each R is independently selected hydrogen, (C_1–C_6) alkyl, (C_5–C_{20}) aryl, (C_6–C_{20}) arylalkyl, and (C_6–C_{20}) arylaryl; or when two R groups on the same nitrogen atom are taken together, those two R groups are (C_4–C_{10}) alkyldiyl or (C_4–C_{10}) alkyleno; and

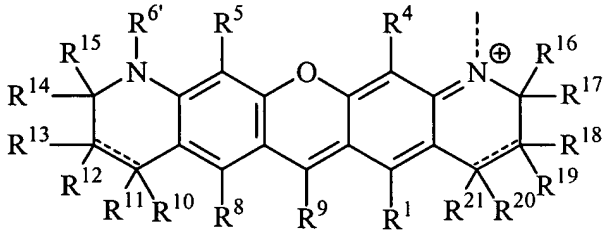
each X is independently a halogen.

83. The labeled nucleoside/tide or nucleoside/tide analog of Claim 82 in which Y^1 is selected from:

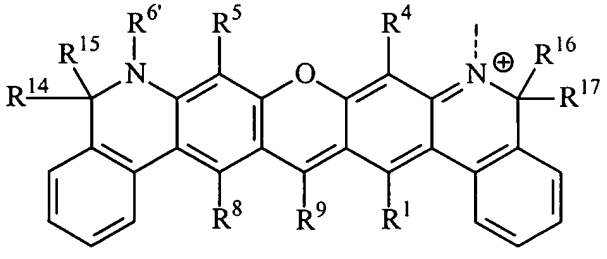
(Y-1b)



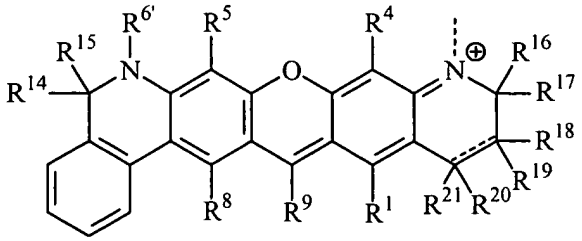
(Y-2b)



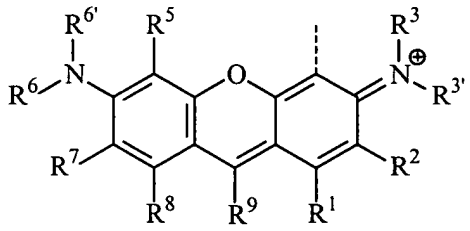
(Y-3b)



(Y-4b)

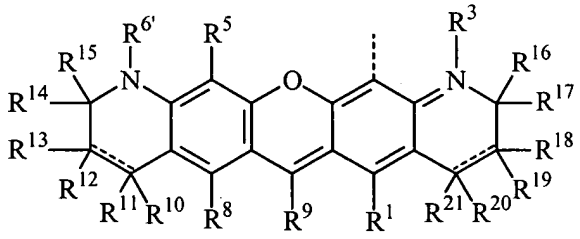


(Y-1c)



A1

(Y-2c)



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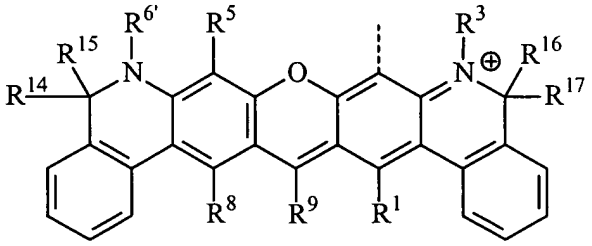

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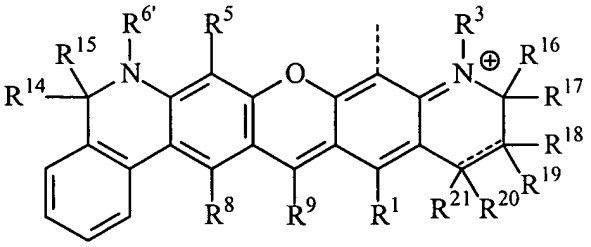


wherein the dashed line at the nitrogen or C4 atom indicates the point of attachment of L.

84. The labeled nucleoside/tide or nucleoside/tide analog of claim 82 wherein:

an alkyldiyl or alkyleno bridge formed by taking R^2 together with R^3, R^4 together with $R^{3'}$, R^5 together with R^6, or R^7 together with $R^{6'}$, is ethano, propano, 1,1–dimethylethano, 1,1–dimethylpropano or 1,1,3–trimethylpropano; and

an aryleno bridge formed by taking R^{10}, R^{11}, R^{12} and R^{13} together or R^{18}, R^{19}, R^{20} and R^{21} together is benzo.

85. The labeled nucleoside/tide or nucleoside/tide analog of claim 82 in which L is selected from phenyldiyl and naphthyldiyl.

86. The labeled nucleoside/tide or nucleoside/tide analog of claim 82 in which L is $-(CH_2)_i-\phi-$ where i is an integer from 1 to 6 and ϕ is phenyldiyl or naphthyldiyl.

87. The labeled nucleoside/tide or nucleoside/tide analog of claim 82 in which Z is selected from phenyl, benzyl, naphthyl, pyridyl and purinyl.

88. The labeled nucleoside/tide or nucleoside/tide analog of Claim 82in which L' is selected from: $-C\equiv C-CH_2-$ and $-C\equiv C-CH_2-O-CH_2CH_2-$.

89. The labeled nucleoside/tide or nucleoside/tide analog of Claim 82 in which L' is: $-C\equiv C-CH_2-O-CH_2CH_2-N(R^{47})-R^{48}-$ wherein R^{47} is hydrogen or (C_1-C_6) alkyl, and R^{48} is selected from:

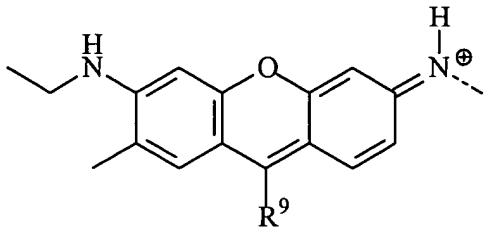
$-C(=O)-(CH_2)_r-$, $-C(=O)-C\equiv C-CH_2-$,

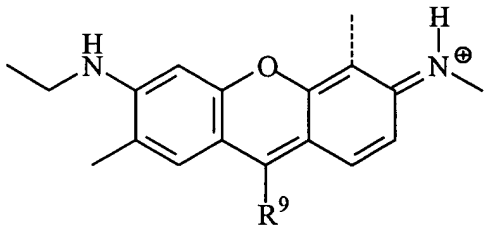
$-C(=O)-CHR^{49}-$ and $-C(=O)-\phi-(CH_2)_r-$

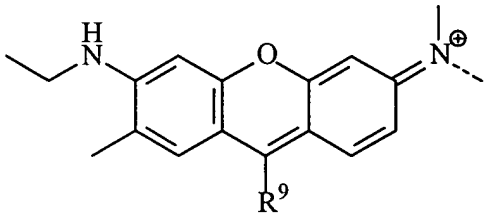
wherein each r is independently an integer from 1 to 6; R^{49} is hydrogen, (C_1-C_6) alkyl, or an amino acid side chain; and ϕ is phenyldiyl or substituted phenyldiyl.

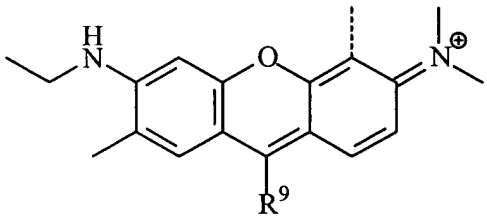
90. The labeled nucleoside/tide or nucleoside/tide analog of claim 82 wherein R^{22}, R^{23}, R^{25}, and R^{26} are each hydrogen.

91. The labeled nucleoside/tide or nucleoside/tide analog of claim 82 in which Y^1 is selected from the group consisting of:

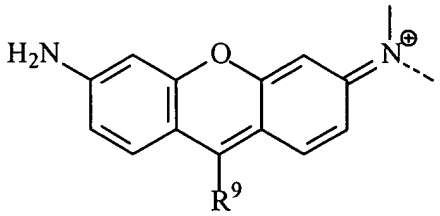
(Y-20b) 

(Y-20c) 

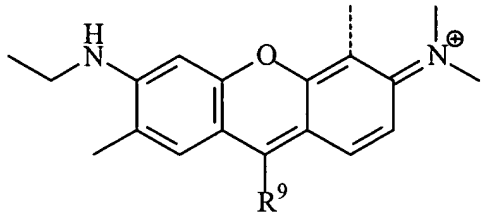
(Y-21b) 

(Y-21c) 

(Y-22b)



(Y-22c)



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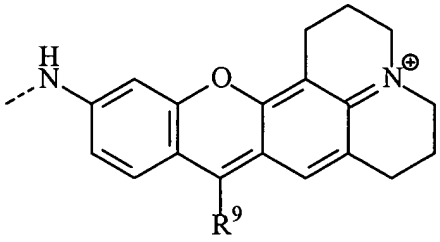
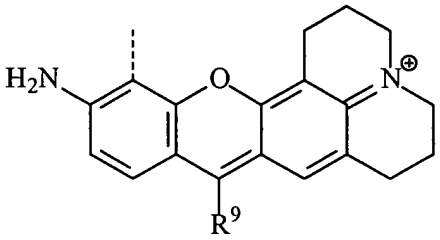
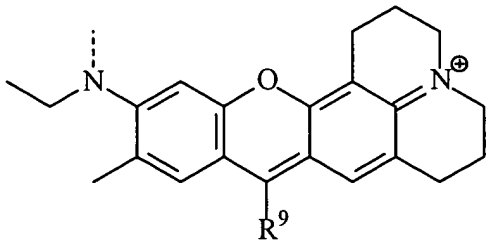
(Y-23b)



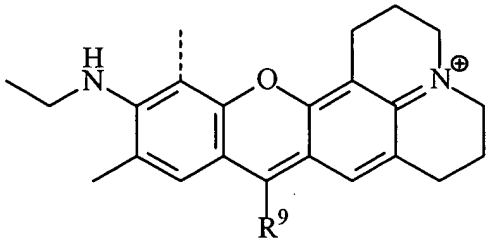
(Y-23c)



(Y-24b)



(Y-24c)



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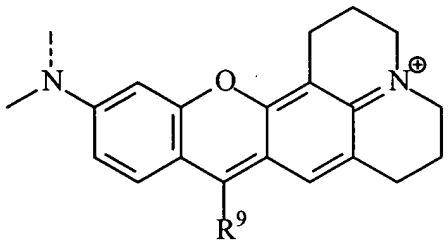
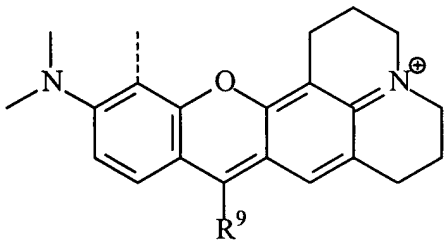
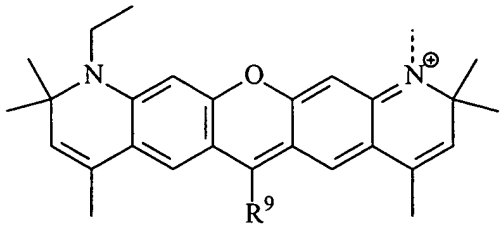
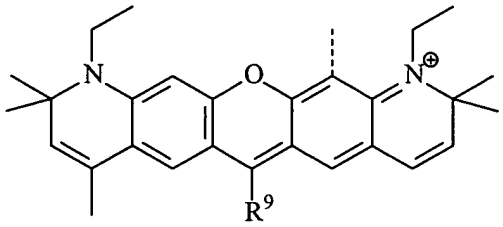
(Y-25b)



(Y-25c)



(Y-31b) 

(Y-31c) 

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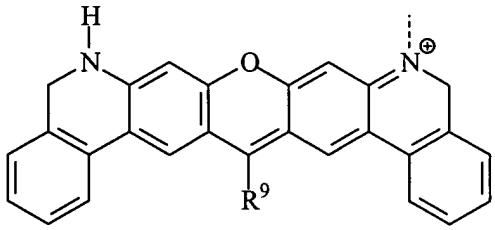
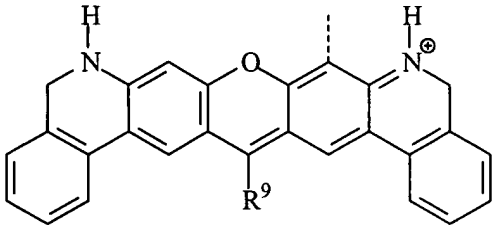
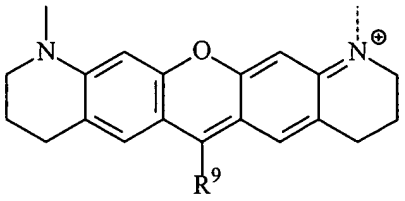
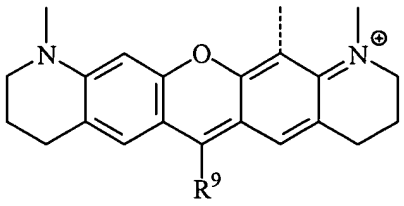
(Y-34b) 

(Y-34c) 

(Y-35b) 

(Y-35c) 

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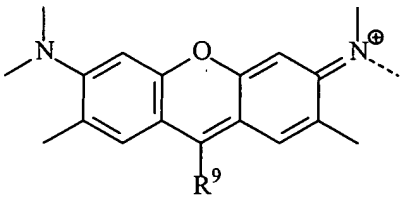
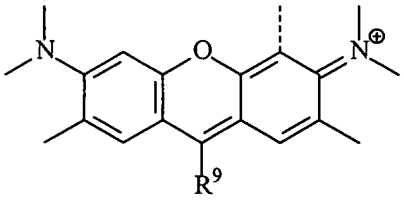
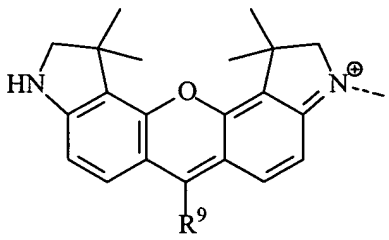
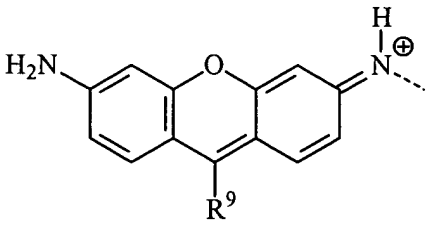
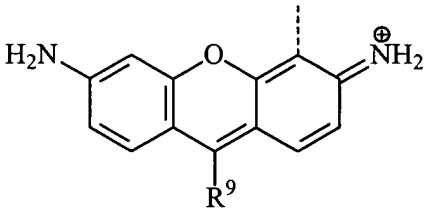
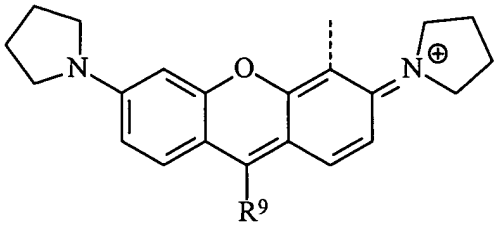
(Y-36b) 

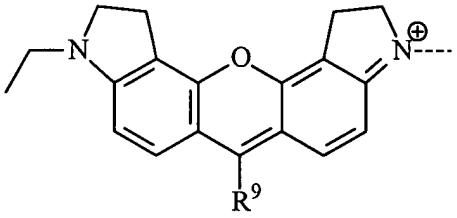
(Y-36c) 

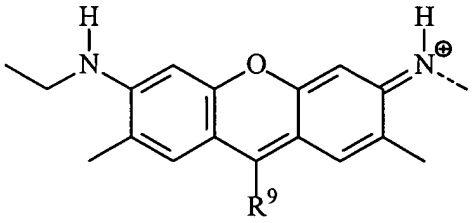
(Y-37b) 

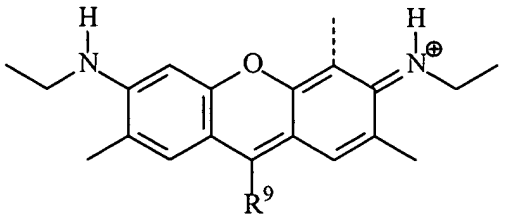
(Y-39b) 

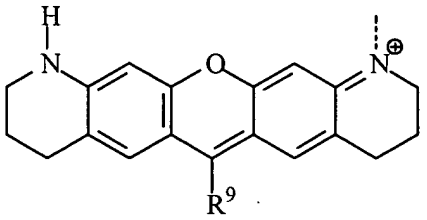
(Y-39c) 

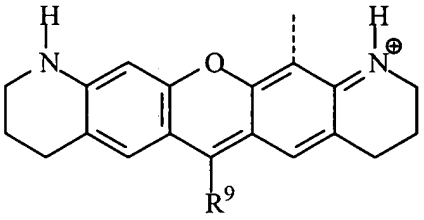
(Y-41c) 

(Y-42b) 

(Y-43b) 

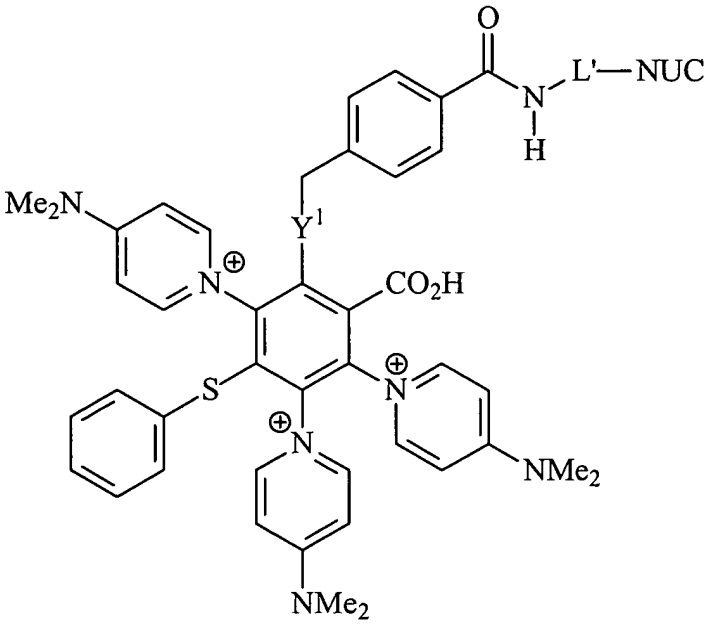
(Y-43c) 

(Y-46b) 

(Y-46c) 

wherein the dash at the nitrogen or C4 atom indicates the point of attachment of L.

92. The labeled nucleoside/tide or nucleoside/tide analog of Claim 82 which has the structure:



93. The labeled nucleoside/tide or nucleoside/tide analog of Claim 92 in which L' is selected from: $-C\equiv C-CH_2-$ and $-C\equiv C-CH_2-O-CH_2CH_2-$.

94. The labeled nucleoside/tide or nucleoside/tide analog of Claim 70 further comprising a donor dye or an acceptor dye whereby the rhodamine dye and the donor dye or acceptor dye form an energy-transfer dye pair.

95. The labeled nucleoside/tide or nucleoside/tide analog of Claim 94 wherein the donor dye or acceptor dye is a fluorescein, rhodamine, cyanine, phthalocyanine or squaraine.

96. The labeled nucleoside/tide or nucleoside/tide analog of Claim 94 wherein the donor dye or acceptor dye is 4'-aminomethyl-6-carboxyfluorescein and the 4'-aminomethyl-6-carboxyfluorescein is covalently attached to the rhodamine dye by a linker.

97. The labeled nucleoside/tide or nucleoside/tide analog of Claim 96 wherein the aminomethylfluorescein is further covalently attached by a linker L to the nucleobase B of the nucleoside/tide or nucleoside/tide analog.

98. The labeled nucleoside/tide or nucleoside/tide analog of Claim 70 which is enzymatically incorporatable.

99. The labeled nucleoside/tide or nucleoside/tide analog of Claim 70 which is a terminator.

100. The labeled nucleoside/tide or nucleoside/tide analog of Claim 70 which is enzymatically extendable.

101. The labeled nucleoside/tide or nucleoside/tide analog of Claim 70 wherein R^{71} and R^{70} are hydrogen.

102. The labeled nucleoside/tide or nucleoside/tide analog of Claim 70 wherein R^{71} and R^{70} are hydroxyl.

103. The labeled nucleoside/tide or nucleoside/tide analog of Claim 70 wherein R^{71} is hydroxyl, and R^{70} is hydrogen.